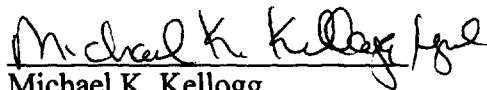


Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Michael K. Kellogg". The signature is fluid and cursive, with the last name being more prominent.

Michael K. Kellogg

Jeffrey A. Lamken

Kevin J. Cameron

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Counsel for the RBOC/GTE/SNET
Payphone Coalition

August 26, 1997



Arthur Andersen LLP

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**Report of Arthur Andersen on Per-Call Compensation
and Cost Calculation**

Carl R. Geppert

August 26, 1997

Report of Arthur Andersen on Per-Call Compensation and Cost Calculation

Arthur Andersen LLP ("Arthur Andersen") was asked to perform five studies for the RBOC/GTE/SNET Payphone Coalition, which includes Ameritech Corporation, Bell Atlantic Telephone Companies, BellSouth Corporation, GTE Service Corporation, Pacific Telesis Group, Southern New England Telephone Company, Southwestern Bell Telephone Company and US West, Inc., ("Coalition"), in response to the FCC's Remand Notice seeking comments on the Court of Appeals for the District of Columbia Circuit's July 1, 1997, decision.

- We calculated per-call compensation ("PCC") based upon current market pricing for access code and subscriber 800 calls ("PCC-related calls").
- We computed the "revenue requirement" of coin ("sent paid") and non-coin ("non-sent paid") calls needed to recover current operating expenses and capital costs of the Coalition members' payphone business units.
- We computed the average number of uncompensated intraLATA access code and subscriber 800 calls, per payphone, per month, currently carried by the Coalition members.
- We calculated the average number of interLATA 0+ calls, per payphone, per month, originating on RBOC and GTE payphones.
- We calculated the average number of interLATA calls, per station, per month, originating from RBOC and GTE payphones located at inmate facilities.

SECTION I: CALCULATION OF MARKET-BASED PER-CALL COMPENSATION

The Coalition requested Arthur Andersen to compute PCC based upon existing market prices for PCC-related calls. In summary, we calculated three amounts that approximate the current market value of PCC-related calls. The following matrix provides an overview of the amounts calculated:

<u>Methodology</u>	<u>Result</u>
Net Avoided Cost Methodology Based Upon Competitive Local Coin Rate	Local Coin Rate + (\$0.01 - \$0.04)
Market Per-Call Commission Received by Comparable Companies, With Adjustments for Call Types	\$0.43 - \$0.63
Average Per-Call Compensation Based Upon Average AT&T Tariffs, With Adjustments for Call Types	\$0.39 - \$0.57

The following discussion elaborates on how each of the above values was calculated.

A. Net Avoided Cost Methodology Based Upon Competitive Local Coin Rate

One method of computing PCC for access code and subscriber 800 calls is to use the market rate for a local coin call, less avoided costs. To compute this figure, we used cost and recurring revenue information provided by each Coalition members' payphone business unit for the year ended December 31, 1996. This information included the following:

Recurring Revenues:

Semi-Public and Booth Revenues

Less Costs:

Volume Sensitive Costs

- Local Transport and Other Local Volume Sensitive Costs
- IntraLATA Transport and Other IntraLATA/InterLATA Volume Sensitive Costs

Station Sensitive Costs

- Subscriber Line Charge

- Access and Other Line Charges
- Collection and Counting
- Station Equipment and Maintenance (including return on asset base)
- Other Station Sensitive Costs

Joint Costs

- Forecasting and Budgeting
- Product Management
- Marketing and Sales
- Business Office
- Advertising
- Other Joint Costs

Common Costs

- Real Estate
- Finance
- Legal
- Other Corporate

Commissions

In order to use 1996 information to forecast one year of non-regulated activity, we adjusted usage and line charge costs to reflect tariffed rates. In addition, all operating cost categories were adjusted for differences between the year ended December 31, 1996 and post-April 15, 1997 activity.

i) Calculation of Avoided Costs

Using the financial data and call statistics provided by each Coalition member, we summarized the information in a computer model and computed the per-call costs unique to local sent paid calls. The avoided costs associated with local sent-paid calls are local transport charges and collection and counting costs. In summary, these costs did not have a large impact in adjusting the local coin rate. The majority of Coalition members have no avoided local usage costs, or have local per-call usage costs of \$0. Rather, they pay a fixed monthly line charge and pay no local usage fees. The average avoided local usage cost for all Coalition members is \$0.02, although, as stated earlier, the majority of Coalition members have local usage costs of \$0.

With regard to coin collection costs, the avoided cost is only slightly larger. We have estimated that, for certain Coalition members, the coin collection costs associated with local sent paid calls is \$0.01 per call. Overall, the Coalition average per-call avoided cost of coin collection is \$0.02.

After combining the avoided costs associated with local transport and coin collection, the Coalition average avoided cost was \$0.04 per call. The following table summarizes the per-call costs associated with each cost category:

	<u>Local Transport</u>	<u>Coin Collection</u>	<u>Total Avoided Costs</u>
Member 1	\$0.00	\$0.01	\$0.01
Member 2	0.00	0.01	0.01
Member 3	0.00	0.02	0.02
Member 4	0.00	0.03	0.03
Member 5	0.00	0.04	0.04
Member 6	0.00	0.04	0.04
Member 7	0.07	0.02	0.09
Member 8	<u>0.08</u>	<u>0.02</u>	<u>0.10</u>
Average	<u>\$0.02</u>	<u>\$0.02</u>	<u>\$0.04</u>

The \$0.04 overall average may overstate the appropriate avoided cost amount. Exactly half of the Coalition members have avoided costs less than \$0.04, two have an average of \$0.04 and the remaining two have avoided costs above \$0.04. Thus, the maximum effect to the local coin rate that the FCC should use in setting PCC is \$0.04. Please note that this is a conservative estimate considering the fact that we did not allocate coin collection costs more heavily to intraLATA and interLATA sent paid calls which require more coins than local sent paid calls.

ii) Consideration of ANI ii Digit Tracking

A proper avoided cost calculation should also take into consideration any additional costs unique to access code and subscriber 800 calls. One example is ANI ii digit tracking costs. It is our understanding that several IXC's proposed that LEC switches be updated to transmit unique ANI ii digit identifiers in hopes of facilitating PCC call tracking. These costs, we understand, would be passed on to PSPs through tariffed rates (otherwise there would be a prohibited subsidy).

We have reviewed two cost estimates, produced by USTA and Bellcore, summarizing the costs to modify current switch technology in compliance with the IXC's' request. The following is a summary of each proposal:

Flex-ANI: USTA estimated the cost to replace existing electromechanical switches, update existing non-equal access switches to equal access and upgrade all switches with Flex-ANI software is approximately \$757 million.

Flex-ANI/OLNS: If the Commission were to allow each LEC to choose between OLNS and Flex-ANI, there would be no need to purchase new switches or upgrade non-equal access switches to equal access switches. We have estimated one alternative cost scenario to the \$757 million noted above which assumes that approximately 6,000 out of 26,459 nationwide switches will be upgraded to Flex-ANI at a cost of \$9,000¹ per switch or \$54 million. The remaining switches will use OLNS at a cost of approximately \$45 million². The total cost for this option is \$99 million.

As explained above, it is our understanding that the costs of these services would be passed to all PSPs in a form similar to line charges. We analyzed the potential impact to PSPs

¹ Letter from Keith Townsend, Director, Regulatory Affairs & Counsel, USTA to William F. Caton, FCC, CC Docket No. 96-128 (filed July 28, 1997).

² Bellcore estimate of OLNS. The total cost of OLNS is estimated to be approximately \$58 million for all switches. The total estimate for non-upgraded switches (20,459 / 26,459 = 77%) is \$45 million.

of the above cost estimates. Specifically, we calculated the cost impact using the following methodology:

- All payphones will absorb some portion of the ANI ii digit tracking costs. We estimate that there are approximately 2 million payphones currently operating within the United States.³
- Using a regulatory cost framework to estimate the total impact of the tariffed price to PSPs, we estimated the total depreciation expense associated with the investment along with a reasonable return on investment ("ROI") to the LEC. We estimated depreciation expense using a seven year life for software upgrades (consistent with regulatory treatment of equal access conversion costs) and a ten year life for switch equipment (consistent with current LEC depreciation practices). ROI was assumed to be 15.75% (applied to the average net investment) which is based upon the federally approved 11.25% rate of return, adjusted for taxes.
- We divided the total depreciation expense and ROI by our estimated 2 million payphones to arrive at an annual station cost, adjusted for commission expenses.
- We divided the annual station cost by the annualized average access code and subscriber 800 calls, as outlined in the First Report and Order (131 per month).⁴

Our study produced a maximum incremental per-call cost of \$0.08 and an average cost of \$0.05 if ANI ii digits are sent using Flex-ANI. The following table summarizes the range of cost impacts resulting from the provision of ANI ii or OLNS services:

³ Peoples Telephone Company, Inc., Form 10-K, For the Fiscal Year Ended December 31, 1996, pg. 5.

⁴ Implementation of the Pay Telephone Reclassification and Compensation Provisions of the Telecommunications Act of 1996, CC Docket No. 96-128, Report and Order, 11 FCC Rcd 20541 (1996), at 125. [hereinafter "First Report and Order"]

	Incremental Cost
<u>Flex-ANI Estimate</u>	
1st Year Cost	\$ 0.08
Average Cost	0.05
<u>Flex-ANI/OLNS Estimate</u>	
1st Year Cost	\$0.01
Average Cost	0.01

One alternative to the above estimates is hard coding ANI ii digits. Using the USTA estimate of hard coding ANI ii digits and the methodology discussed above, the cost per call ranges from \$0.07 to \$0.11.

iii) Other Considerations

We understand that several IXC's have suggested that coin mechanism costs should be treated as avoided costs and deducted from the local coin rate. We do not feel this is appropriate for the following reasons:

- a) But for coin calls, the majority of payphones would become unprofitable and cease to exist. Consequently, it is inappropriate to treat coin mechanism costs as avoided. Rather, they should be treated as a necessary cost and one that allows the set to exist for the use of coin and non-coin calls.
- b) If we were to eliminate all costs related to handling coin calls (e.g., local usage, coin collection), the average cost per non-coin call goes up. Many payphone business unit costs are fixed in nature and would be allocated to a smaller portion of overall calls were coin mechanism costs to be eliminated.
- c) Many argue that there are dramatic cost differences between coin stations and coinless stations. In fact, the equipment cost difference between coin and coinless

sets is minimal. Hatfield Associates, Inc., in their October 10, 1995 "Payphone Compensation Cost Analysis" relies upon a New England Telephone Company cost study to illustrate that the average cost per set of a coinless, public, indoor station is \$300.39.⁵ After reviewing the New Hampshire Incremental Cost study referred to in Hatfield Associates' report, we noted that the cost per set of a public coin indoor station is \$335.76.⁶ Minimal differences also exist related to outdoor stations (\$1,289.19 for an outdoor public coinless station as compared to \$1,324.56 for an outdoor public coin station)⁷. Consequently, any deductions for the difference in coin and coinless stations would be insignificant.

B. Market Per-Call Commission Received by Comparable Companies, With Adjustments for Call Types

We asked the APCC to provide the average revenue generated from a commissionable call and the commission rate paid to the largest APCC member.⁸ In addition, we asked the Coalition members for more recent commission data. In particular, one Coalition member provided a range of rates currently proposed by IXC's in negotiations for 0+ traffic. The APCC and Coalition member provided the following information:

Average IXC Revenue for Commissionable Call:	\$2.50
Range of Comparable Commission Rates:	36% - 53%

The average IXC revenue for commissionable calls (primarily 0+ credit card and collect calls) is intended to serve as a proxy for the average revenue generated from similar calls completed using access code dialing. The commission rates are intended to serve as a proxy for the

⁵ "Payphone Compensation Cost Analysis", Hatfield Associates, Inc. (October 10, 1995), pg. 3.

⁶ "New Hampshire Incremental Cost Study" (1993), Attachment 2.

⁷ Id.

⁸ This information was requested in 1996 on behalf of the RBOC Payphone Coalition.

commission rate applicable to all Coalition members. In general, all but one Coalition member maintain more payphones than the largest IPP and can expect to receive similar or higher commission rates than the figures quoted above. Based upon the information provided by the APCC and Coalition members, the market rate of access code calls for an IPP of similar size to any Coalition member has the following range:

	<u>Low</u>	<u>High</u>
Avg. Commissionable Revenue	\$2.50	\$2.50
Commission Rate	<u>36%</u>	<u>53%</u>
Commission	\$0.90	\$1.33

To adjust for different revenue streams associated with other PCC-related calls, we calculated a similar commission for subscriber 800 calls. Specifically, we estimated the average per-call revenue associated with subscriber 800 calls to be \$0.50⁹ and multiplied this amount by the range of commission rates provided by the APCC and Coalition members(36% - 53%).¹⁰ The resultant commission applicable to a subscriber 800 call is as follows:

	<u>Low</u>	<u>High</u>
Avg. Subscriber 800 Revenue	\$0.50	\$0.50
Commission Rate	<u>36%</u>	<u>53%</u>
Commission	\$0.18	\$0.27

⁹The per-call revenue was taken from AT&T's Reply Comments in which they noted, "AT&T's average per-call revenue for its toll-free services calls is no more than about \$0.50." Reply Comments of AT&T, Implementation of the Pay Telephone Reclassification and Compensation Provisions of the Telecommunications Act of 1996, CC Docket No. 96-128, at 11 (FCC July 15, 1996).

¹⁰ We have identified one source which itemizes potentially higher per-minute charge for four subscriber 800 services than the \$0.50 rate quoted by AT&T. The simple average of the per-minute rates, converted to calls using a 3.25 minute duration, is \$0.59 (Bates Bud and Donald Gregory, *Voice & Data Communications Handbook* (McGraw-Hill, 1996), pg. 96). In addition, the \$0.50 per-minute rate quoted by AT&T may not include service charges.

Based upon information provided in the First Report and Order¹¹, we have assumed that access code calls make up approximately 34% of all PCC-related calls. Weighting the market values of access code and subscriber 800 calls by this call mix produces the following results:

<u>Call Type</u>	<u>Commissions</u>	<u>Weighting</u>	<u>PCC</u>
Access Code Calls - low	\$0.90	34%	\$0.31
Subscriber 800 Calls - low	0.18	<u>66%</u>	<u>0.12</u>
Total - low		100%	\$0.43
Access Code Calls - high	\$1.33	34%	\$0.45
Subscriber 800 Calls - high	0.27	<u>66%</u>	<u>0.18</u>
Total - high		100%	\$0.63

C. Average Per-Call Compensation Based Upon AT&T Tariffs, With Adjustments for Call Types

We performed a second calculation of market-based PCC using AT&T tariffed rates. The three components necessary to perform this calculation were average call duration, tariff charges of 0+ calls and call mix.

- **Call Duration:** We computed the call duration of interLATA credit card and collect calls using payphone call data obtained from Coalition members. The average call duration was approximately 3.22 minutes for credit card and calling card calls and 3.42 minutes for collect calls.

¹¹ First Report and Order, at 124.

- AT&T Tariffs: The following matrix provides an overview of the tariff charges (for the average mileage band of 293-430 miles) for calling card and collect calls (a more comprehensive schedule of tariffs is provided in Exhibit A). The average call durations discussed above were used to calculate the per-call revenue as follows:

<u>Call Type</u>	<u>Surcharge</u>	<u>Initial Minute</u>	<u>Each Additional Minute</u>	<u>Per-Call Revenue</u>
<u>Calling Card Calls:</u>				
Daytime Rates	\$0.60	\$0.35	\$0.35	\$1.73
Evening Rates	0.60	0.35	0.35	1.73
Night/Weekend Rates	0.60	0.35	0.35	1.73
<u>Collect Calls:</u>				
Daytime Rates	\$2.25	\$0.45	\$0.40	\$3.67
Evening Rates	2.25	0.33	0.28	3.26
Night/Weekend Rates	2.25	0.28	0.23	3.09

- Call Mix: Coalition members provided the mix of credit card and collect calls (73% and 27%, respectively). In addition, the FCC, in its 1992 Second Report and Order¹² provided a breakdown of calling rates (credit card calls: 60% daytime, 24% evening, 16% night/weekend; collect calls: 26% daytime, 44% evening, 30%¹³ night/weekend).

Using the call duration, tariff and call mix data described above, we computed the average revenue associated with a credit card and collect call to be \$2.16. The following table summarizes our calculations:

¹² Policies and Rules Concerning Operator Services Access and Pay Telephone Compensation, (Second Report and Order) 7 FCC Rcd 3251 (1992), at 38 [hereinafter "Second Report and Order"].

¹³ The Second Report and Order references 31%. The use of 31% causes the total collect call mix to exceed 100%. The amount was revised to 30% to ensure that the collect call mix totaled 100%.

<u>Call Type</u>	<u>Revenue</u>	<u>Rate Weight</u>	<u>Amount</u>
<u>Calling Card Calls:</u>			
Daytime Rates	\$1.73	60%	\$1.04
Evening Rates	1.73	24%	0.42
Night/Weekend Rates	1.73	<u>16%</u>	<u>0.28</u>
		100%	\$1.73
Weighted Calling Card Amount (at 73%)			\$1.26
<u>Collect Calls:</u>			
Daytime Rates	\$3.67	26%	\$0.95
Evening Rates	3.26	44%	1.43
Night/Weekend Rates	3.09	<u>30%</u>	<u>0.93</u>
		100%	\$3.32
Weighted Collect Amount (at 27%)			\$0.90
Average Revenue			<u>\$2.16</u>

We then multiplied the average revenue stream by the range of commission rates provided by the APCC and Coalition members, as follows:

	<u>Low</u>	<u>High</u>
AT&T Tariff Credit Card/Collect Revenue	\$2.16	\$2.16
Commission Rate	<u>36%</u>	<u>53%</u>
Commission	\$0.78	\$1.14

As discussed in Section I.B above, we estimated that subscriber 800 calls produce approximately \$0.50 of revenue and, using the range of commission rates provided by the APCC and Coalition members, can be expected to produce a commission in the range of \$0.18 to \$0.27 per call.

Based upon information provided in the First Report and Order, we assume access code calls make up approximately 34% of all PCC-related calls. Weighting the market values of access code and subscriber 800 calls by this mix produces the following results:

<u>Call Type</u>	<u>Commissions</u>	<u>Weighting</u>	<u>PCC</u>
Access Code Calls - low	\$0.78	34%	\$0.27
Subscriber 800 Calls - low	0.18	<u>66%</u>	<u>0.12</u>
Total - low		100%	\$0.39
Access Code Calls - high	\$1.14	34%	\$0.39
Subscriber 800 Calls - high	0.27	<u>66%</u>	<u>0.18</u>
Total - high		100%	\$0.57

SECTION II: COST-BASED APPROACH

A. Per-Call Compensation Based Upon Embedded Direct Costing

One alternative to a market based PCC is per-call compensation based upon the expected direct costs of the new public payphone operating unit, including a reasonable level of return on the fully embedded asset base.

Using the information and methodology described in Section I.A, we compared the average cost of a coin call to the average cost of a non-coin call. In total, the per-call cost difference between coin and non-coin calls was \$0.04.¹⁴

The \$0.04 difference described above is conservative in that it does not take into consideration the potential impact to payphone service providers of ANI ii digit tracking costs. Were ANI ii costs included in our analysis, the overall per-call non-coin costs will exceed the per-call cost of handling coin calls by as much as \$0.02 per call. If OLNS were permitted as a substitute for ANI ii, the difference between coin and coinless calls would be \$0.03.¹⁵

¹⁴ This figure represents the average of all Coalition members. Please note that the individual Coalition members' cost per-call figures varied widely. For all calls, the per-call cost could be as high as \$0.34, while for local sent paid calls, the cost per call may extend to \$0.37.

¹⁵ In addition, we studied the impact of setting PCC at too low of a per-call rate. Using station-by-station data provided by several Coalition members along with the marginal revenue thresholds used by Coalition members to evaluate whether a station should be kept in service, we estimate that in excess of 20% of all Coalition payphones will be taken out of service if PCC is set at \$0.35. For each \$0.01 that PCC is set below \$0.35, thousands of additional stations may be removed.

**B. Calculation of the Average Cost of Access Code and Subscriber 800 Calls
Assuming Non-Volume Sensitive Costs are Allocated Based Upon Gross Revenue**

At Professor Jerry Hausman's request, we estimated the cost of carrying an access code and subscriber 800 call by allocating the Coalition's non-volume sensitive costs to each call type (i.e., local sent paid/non-sent paid, intraLATA sent paid/non-sent paid, interLATA sent paid/non-sent paid, access code and subscriber 800) based upon estimates of the gross revenue generated from each call. All costs were allocated to each call type based upon the relative amount of gross revenue produced.

Using the methodology described above, we estimate that the Coalitions' cost to carry each access code and subscriber 800 call is \$0.37.

**SECTION III: AVERAGE NUMBER OF INTRALATA ACCESS CODE AND
SUBSCRIBER 800 CALLS**

The FCC, in Section B.1 of their Remand Notice, seeks comments on "whether the Commission should include LECs that carry toll traffic among the carriers required to pay interim compensation." In response to the FCC's inquiry, the Coalition requested that we compute, per station, per month, the average number of uncompensated local and intraLATA access code and subscriber 800 calls carried over the Coalitions members' networks.

To calculate the figures requested by the Coalition, we accumulated call statistics from each Coalition member which summarized the total uncompensated call counts for access code and subscriber 800 calls carried within the LECs' network.

Access Code Calls: While analyzing the access code results, we noticed that some Coalition members do not provide intraLATA access code services. Of those that carry

intraLATA access code calls, three currently compensate PSPs to carry this traffic.¹⁶ Using Coalition payphones as a surrogate for all payphones, the average number of uncompensated intraLATA access code calls carried on all Coalition payphones was 1, per station, per month.

Subscriber 800 Calls: We found even stronger consistency among Coalition members regarding intraLATA subscriber 800 calls. Of those Coalition members which provided data, all but one do not currently compensate PSPs for carrying intraLATA subscriber 800 calls.¹⁷ Using Coalition payphones as a surrogate for all payphones, the average number of uncompensated subscriber 800 calls, per station, per month is approximately 4.

While the above figures represent the average for all Coalition members, they should not be relied upon because they are not indicative of what any one Coalition member experiences. There are wide variances in terms of the total number of intraLATA access code and subscriber 800 calls between each Coalition member. Many, in fact, do not carry any access code or subscriber 800 calls.

SECTION IV: AVERAGE NUMBER OF INTERLATA 0+ CALLS

Section B.2 of the FCC's Remand Notice seeks comments on "how the BOCs, and any other similarly situated PSP, should be compensated during the interim period for 0+ calls for which they do not receive compensation by contract." In response to this issue, the Coalition requested that we compute the average number of interLATA 0+ calls, per payphone, per month, that are carried over RBOC and GTE payphones. Based upon the information provided

¹⁶ Two Coalition members compensate both the RBOC-PSP and IPPs for all intraLATA access code calls. The third Coalition member does not compensate the RBOC-PSP but does compensate a small number of IPPs. Due to the insignificance of IPP compensated calls, we assumed all intraLATA access code calls carried over payphones within their territory were uncompensated for purposes of our analysis.

¹⁷ One Coalition member does not compensate the RBOC-PSP for intraLATA subscriber 800 calls but does compensate a small number of IPPs. Due to the insignificance of compensated calls, we assumed all intraLATA subscriber 800 calls carried over payphones within their territory were uncompensated for purposes of our analysis.

by the RBOCs and GTE, the average number of interLATA 0+ calls are 24, per station, per month.

SECTION V: AVERAGE CALLS MADE FROM INMATE FACILITIES

In response to Section B.3 of the Remand Notice ("Compensation for Inmate Calls During the Interim Period"), the Coalition requested Arthur Andersen to compute the average number of interLATA calls made from RBOC and GTE payphones located at inmate facilities.

Using data provided by the RBOCs and GTE (not all Coalition members provided data), the average number of interLATA inmate calls, per station, per month, made from the RBOCs and GTE is 198.

Attached as Exhibit B is my curriculum vitae.

ARTHUR ANDERSEN LLP

Carl R. Geppert (WLM)

by
Carl R. Geppert

RBOC/GTE/SNET Payphone Coalition
Summary of ATT Tariffs

Exhibit A

	<u>Service Charge</u>	<u>Initial Minute</u>	<u>Each Additional Minute</u>	<u>Total Revenue</u>
<u>Calling Card Calls</u>				
<u>Lowest (1 - 10 Miles)</u>				
Day	\$0.60	\$0.35	\$0.35	\$1.73
Evening	0.60	0.35	0.35	1.73
Night/Weekend	0.60	0.35	0.35	1.73
<u>Average (293 - 430 Miles)</u>				
Day	\$0.60	\$0.35	\$0.35	\$1.73
Evening	0.60	0.35	0.35	1.73
Night/Weekend	0.60	0.35	0.35	1.73
<u>Highest (4,251+ Miles)</u>				
Day	\$0.60	\$0.35	\$0.35	\$1.73
Evening	0.60	0.35	0.35	1.73
Night/Weekend	0.60	0.35	0.35	1.73
<u>Collect Calls</u>				
<u>Lowest (1 - 10 Miles)</u>				
Day	\$2.25	\$0.37	\$0.32	\$3.39
Evening	2.25	0.28	0.23	3.09
Night/Weekend	2.25	0.22	0.17	2.88
<u>Average (293 - 430 Miles)</u>				
Day	2.25	\$0.45	\$0.40	\$3.67
Evening	2.25	0.33	0.28	3.26
Night/Weekend	2.25	0.28	0.23	3.09
<u>Highest (4,251+ Miles)</u>				
Day	2.25	\$0.46	\$0.41	\$3.70
Evening	2.25	0.35	0.30	3.33
Night/Weekend	2.25	0.30	0.25	3.15

CARL R. GEPPERT

CURRICULUM VITAE

RELEVANT SKILLS AND EXPERIENCE

Carl is a partner in the Denver office of Arthur Andersen and is a member of the Firm's Global Communications and Entertainment Group. He has over 17 years of experience in assisting communications companies address significant financial, regulatory and business issues. Carl's experience includes:

- Serves as the overall engagement partner for our financial statement and Part 64 cost allocation audits at US WEST Communications, Inc. and subsidiaries.
- Directs our Firm's Communications Industry training program and develops and conducts training seminars on the telecommunications regulatory accounting process, accounting for income taxes, the rate case process and service cost concepts for communications industry personnel. Has instructed over 100 training seminars in the communications industry.
- Directs our Firm's regulatory audit and consulting activities and developed our Firmwide approach to Part 64 cost allocation audits. Serves as our Firm's primary interface with the Federal Communications Commission (FCC) in addressing Part 64 and related regulatory issues. Serves as Part 64 audit engagement partner at US WEST and Ameritech and advisory partner on our Part 64 audits at GTE, Alltel and SNET. Has conducted special seminars regarding the Part 64 Rules and audit requirements for the FCC Accounting and Audits Branch and for several audit and non-audit clients and consults regularly with communications clients of all sizes regarding regulatory matters, including issues involving the proper application of the Part 32 Uniform System of Accounts and the Part 64 Cost Allocation Rules.
- Directs our Firm's wireline telecommunications revenue assurance consulting practice. Has directed projects to analyze business processes, internal controls and systems controls over end user, carrier and miscellaneous revenues. Leading the development of the Global Best Practices knowledge space in the wireline revenue assurance area.
- Directed our work for the Regional Bell Operating Company payphone coalition, and filed affidavits with the FCC, addressing pay telephone per call compensation and asset reclassification/cost accounting safeguard issues in response to Section 276 of the Telecommunications Act of 1996. Also filed expert affidavit in conjunction with the United States Telephone Association's Petition for Reconsideration of the FCC's Second Report and Order in CC Docket No. 96-149.
- Prior to transferring to the Denver office in September 1996, Carl was a partner in the Chicago office of Arthur Andersen. He served as the overall audit engagement partner for our financial statement audits at Ameritech's landline communications companies and several of Ameritech's nonregulated subsidiaries and Part 64 cost

allocation audit work at Ameritech Corporation and subsidiaries.

- Member of our Firm's Global Communications and Entertainment Industry Group, specializing in accounting and regulatory matters. Serves as our Firm's Communications Industry accounting and audit technical coordinator for local exchange carriers. Has directed numerous projects within the communications industry in the areas of domestic and international regulatory and costing matters, pay telephone costing and regulatory strategy, accounting and cost allocation, process reengineering, revenue assurance, separations and settlements, switched and special access billing, financial forecasting and internal controls.
- Consulting extensively on the design, implementation and audit of systems and procedures for Part 64 cost allocations between regulated services and nonregulated activities, implementation of/ compliance with the Part 32 Uniform System of Accounts and compliance with the affiliate transaction, cost capitalization and basic property record requirements.
- Assisting in rate filings by reviewing forecasted data, analyzing historical data and developing and reviewing expert testimony on a variety of complex accounting and tax issues. Developed a P.C.-based Pricing Analysis Tool to assist companies evaluate alternative regulatory strategies at the Federal and state levels.
- Directing process reengineering efforts at local exchange carriers, including reengineering projects in the finance area which resulted in significant process efficiencies and cost savings in the areas of accounts receivable, accounts payable, treasury, corporate accounting, payroll, centralized mail remittance, taxes, regulatory and property and cost accounting.
- Consultation on local exchange carrier internal control procedures and operating efficiencies in the areas of customer and carrier access billing, purchased accounts receivable and settlement processing.

REPRESENTATIVE CLIENTS

US WEST
Ameritech
Bell Atlantic
BellSouth
NYNEX
Pacific Telesis
SBC Communications

ATU Telecommunications
Alltel
Citizens Utilities
GTE
SNET
Sprint
United States Telephone Association

EDUCATIONAL AND PROFESSIONAL BACKGROUND

Carl holds Bachelor and Master of Science degrees in accounting from the University of Illinois. He is a CPA in the states of Colorado and Illinois and is a member of the American Institute of Certified Public Accountants, Illinois CPA Society and the Accounting and Tax Committee of the Illinois Telephone Association.

Declaration of Professor Jerry A. Hausman

I, Jerry A. Hausman, do hereby declare as follows:

1. I am MacDonald Professor of Economics at the Massachusetts Institute of Technology in Cambridge, Massachusetts, 02139.

2. I received an A.B. degree from Brown University and a B.Phil. and D. Phil. (Ph.D.) in Economics from Oxford University where I was a Marshall Scholar. My academic and research specialties are econometrics, the use of statistical models and techniques on economic data, and microeconomics, the study of consumer behavior and the behavior of firms. I teach a course in "Competition in Telecommunications" to graduate students in economics and business at MIT each year. Competition in long distance is one of the primary topics covered in the course. I was a member of the editorial board of the Rand (formerly the Bell) Journal of Economics for the past 13 years. The Rand Journal is the leading economics journal of applied microeconomics and regulation. In December 1985, I received the John Bates Clark Award of the American Economic Association for the most "significant contributions to economics" by an economist under forty years of age. I have received numerous other academic and economic society awards. My curriculum vitae is included as Exhibit 1.

3. I have done significant amounts of research in the telecommunications industry. My first experience in this area was in 1969 when I studied the Alaskan telephone system for the Army Corps of Engineers. Since that time, I have studied the demand for local measured service, the demand for intrastate toll service, consumer demands for new types of telecommunications technologies, marginal costs of local service, costs and benefits of different types of local services, including the effect of higher access fees on consumer welfare, demand and prices in the cellular telephone industry, and consumer demands for new types of pricing options for long distance service. I have also studied the effect of new entry on competition in paging markets, telecommunications equipment markets, and interexchange markets and have published a number of papers in academic journals and books about telecommunications. I have also edited two recent books on telecommunications, Future Competition in Telecommunications (Harvard Business School Press, 1989) and Globalization, Technology and Competition in Telecommunications (Harvard Business School Press, 1993).

4. I have previously provided affidavits to the FCC on competition among long distance providers and cellular providers, and on numerous other telecommunications topics. Many of the economic principles that I use in this declaration have arisen previously in proceedings before the California Public Utility